

CLAIMS

1. A method of manufacture of a data cable comprising steps of:
extruding a core from a core material; and
arranging the core together with a plurality of twisted pairs of insulated conductors including a first twisted pair and a second twisted pair, wherein the core is disposed between the plurality of twisted pairs of insulated conductors so as to separate the first twisted pair from the second twisted pair along a length of the data cable; and
jacketing the core and the plurality of twisted pairs so as to form the data cable;
wherein the step of extruding the core includes stretching the core material at a plurality of intervals during extrusion so as to form a corresponding plurality of pinch points along a length of core such that a diameter of the core at the pinch points is substantially reduced relative to a maximum diameter of the core.
2. The method as claimed in claim 1, wherein the step of extruding the core includes extruding the core such that the core comprises a plurality of fins extending outwardly from a center of the core and defining a plurality of channels, and wherein the step of arranging includes arranging the core and the plurality of twisted pairs such that at least one of the twisted pairs of insulated conductors is disposed within each of the plurality of channels.
3. The method as claimed in claim 1, wherein the step of jacketing includes jacketing the core and the plurality of twisted pairs with a jacket having a plurality of inwardly projecting protrusions disposed about a circumference of the jacket.
4. A method of forming a bundled cable comprising wrapping a plurality of cables in a binder, wherein the plurality of cables comprise the cable formed by the method of claim 3.
5. The method as claimed in claim 1, wherein the step of jacketing includes jacketing the core and the plurality of twisted pairs with a jacket having a plurality of outwardly projecting protrusions disposed about a circumference of the jacket.

6. A method of forming a bundled cable comprising first and second cables formed by the method of claim 5, the method comprising a step of fitting together the jacket of the first cable and the jacket of the second cable such that the pluralities of protrusions interlock so as to join the first cable to the second cable.

7. A shielded cable comprising
a plurality of twisted pairs of insulated conductors including a first twisted pair and a second twisted pair;
a core disposed between the plurality of twisted pairs of insulated conductors so as to separate the first twisted pair from the second twisted pair along a length of the data cable;
a dual-layer jacket enclosing the core and the plurality of twisted pairs of insulated conductors, the dual-layer jacket including a first jacket layer and a second jacket layer;
and
a conductive shield disposed between the first jacket layer and the second jacket layer.

8. The shielded cable as claimed in claim 7, wherein the core comprises a plurality of pinch points disposed along the length of the core, a diameter of the core at each of the plurality of pinch points being substantially reduced compared with a maximum diameter of the core.

9. A bundled cable comprising
a first cable including a plurality of twisted pairs of insulated conductors and a first separator arranged between the plurality of twisted pairs so as to separate one of the plurality of twisted pairs from others of the plurality of twisted pairs, the first cable having a first jacket; and
a second cable including a plurality of twisted pairs of insulated conductors and a second separator arranged between the plurality of twisted pairs so as to separate one of the plurality of twisted pairs from others of the plurality of twisted pairs, the second cable having a second jacket;

wherein each of the first and second jackets comprises a plurality of protrusions.

10. The bundled cable as claimed in claim 9, wherein the plurality of protrusions of the first jacket are inwardly projecting.

11. The bundled cable as claimed in claim 10, wherein the plurality of protrusions of the second jacket are inwardly projecting.

12. The bundled cable as claimed in claim 9, the plurality of protrusions of each of the first and second jackets are outwardly projecting, and wherein the first and second jackets are adapted to mate with one another so as to lock the first cable to the second cable.

13. The bundled cable as claimed in claim 12, wherein the first and second separators are non-conductive.

14. The bundled cable as claimed in claim 9, wherein the bundled cable is helically twisted in an oscillating manner such that the bundled cable comprises a first region having a clockwise twist lay and a second region having an anticlockwise twist lay.

15. A cable comprising:

- a plurality of twisted pairs of insulated conductors including a first twisted pair and a second twisted pair;

- a core disposed between the plurality of twisted pairs of insulated conductors so as to separate the first twisted pair from the second twisted pair; and

- a jacket surrounding the plurality of twisted pairs of insulated conductors and the core;

- wherein the first twisted pair has a first twist lay, a first insulation thickness and a first nominal impedance;

- wherein the second twisted pair has a second twist lay, smaller than the first twist lay, a second insulation thickness and a second nominal impedance that is lower than the first nominal impedance; and

wherein the first and second twist lays and the first and second nominal impedances are selected such that a skew between the first and second twisted pairs is less than about 21 nanoseconds per 100 meters and a difference between the first and second nominal impedances is between approximately 2 Ohms and 15 Ohms.

16. The cable as claimed in claim 15, wherein the first insulation thickness is substantially the same as the second insulation thickness.

17. The cable as claimed in claim 15, wherein the first insulation thickness is larger than the second insulation thickness.